s18quiz: EXP LOG (QUIZ v249)
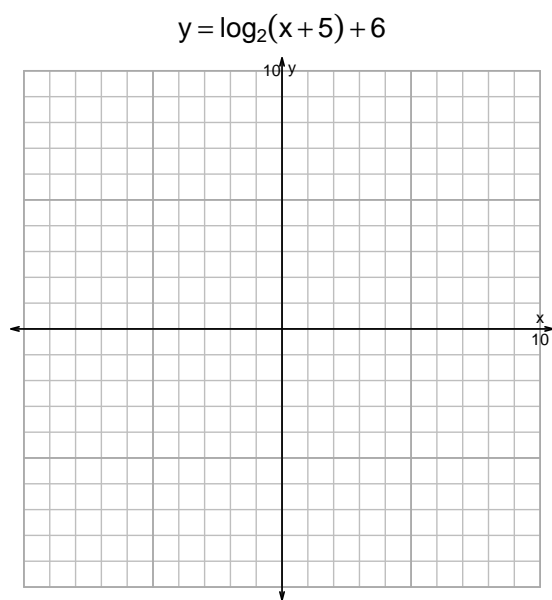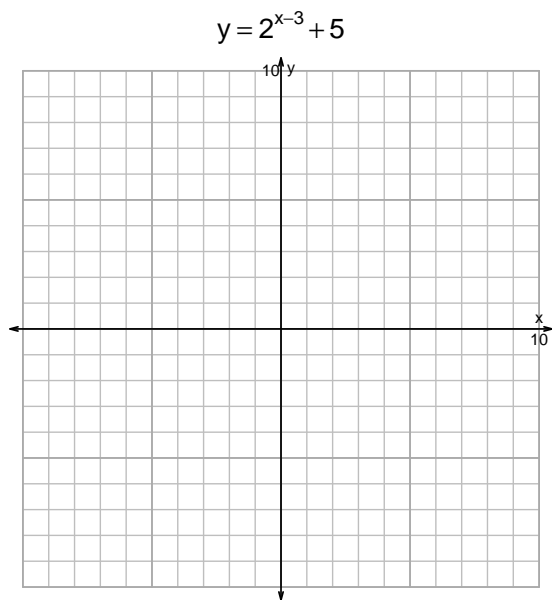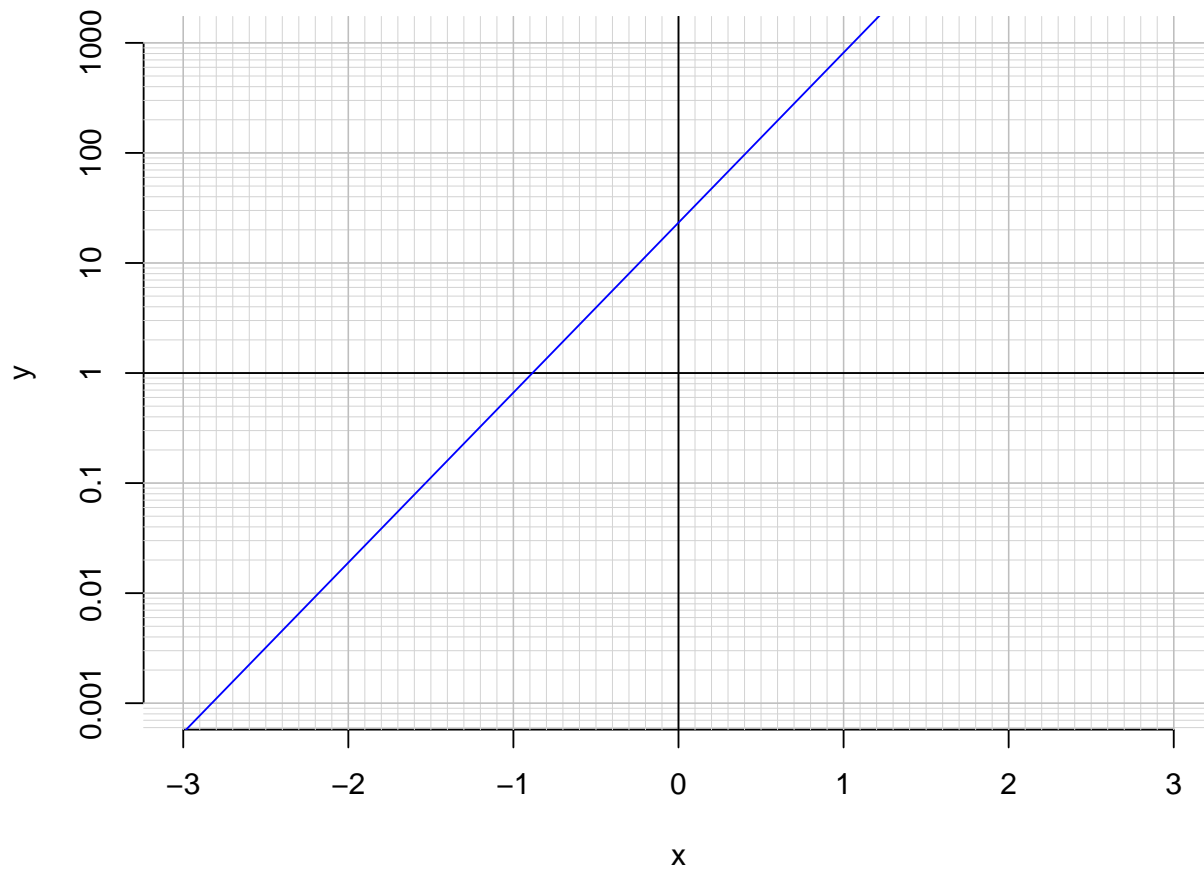
1. Graph $y = 2^{x-3} + 5$ and $y = \log_2(x+5) + 6$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = 2^{x-3} + 5$$

$$y = \log_2(x+5) + 6$$

2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-17 = \left(\frac{-4}{5}\right) \cdot 2^{-7t/3}$$

3. An exponential function $f(x) = 23.3 \cdot e^{3.56x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(-0.3)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(400)$.